



WEST HANTS REGIONAL MUNICIPALITY REPORT

Information ☐	Recommendation ☒	Decision Request ☐	Councillor Activity ☐
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To: Mayor Zebian and Members of West Hants Regional Municipality Council

Submitted by: _____
John Ogilvie, Climate Action Coordinator

Date: 2024-05-28

Subject: Award: Consultant Services to Complete a Solar Energy Feasibility Study

LEGISLATIVE AUTHORITY

NS Municipal Government Act, Section 65

WHRM GHG Emission Local Action Plan, Action Items 2.2-2.4, 5.4

RECOMMENDATION or DECISION REQUEST

...that Council approves awarding consultant services to complete a Solar Energy Feasibility Study, to CBCL Limited in the amount of \$77,500.00 plus 10% contingency and applicable taxes for a total cost of \$88,907.23.

BACKGROUND

Property ☒	Public Opinion ☐	Environment ☒	Social ☐	Economic ☒	Councillor Activity ☐
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On June 27, 2023, Council approved the following motion:

“...that Committee of the Whole recommend that Council approve in principle funding 25% as the Municipal contribution of an application to the Nova Scotia Low Carbon Communities program to support a solar energy feasibility study, up to a maximum Council contribution of \$25,000, to be funded through the Regional Operating Reserve.”

On November 14, 2023, staff were notified that WHRM had been approved for a grant of \$75,000, to perform a solar energy feasibility study on Municipally owned lands.

To give notice to Council about this forthcoming recommendation, staff provided an information report at the May 14, 2024, Committee of the Whole meeting, which is provided as Attachment A to this report.

DISCUSSION

Using alternative procurement as an expedited measure, due to the limited timeframe to perform a study during spring/summer and meet grant timelines, staff requested proposals from consulting firms on standing offer with the Municipality on January 18, 2024.

Staff requested that proponents provide a proposal including an estimated timeline and budget that includes an ability to investigate the following:

- Geotechnical or structural stability/capacity as necessary;
- Electrical connections and consultation with Nova Scotia Power regarding site and grid capacity for solar energy;
- Available space and maximum installation footprint;
- Capital cost estimates – for the maximum size installation at each site and a unit cost per row of panels determined by the specific plot size.
- Assessment of shading and estimated energy/power generation – annual, lifetime, and estimate of efficiency loss over time; and
- Greenhouse gas emissions avoided/reduced.

Following detailed discussions with some of the potential proponents, and multiple opportunities for questions about expectations and existing data, staff received one (1) proposal, which is the recommended proposal.

NEXT STEPS

Pending Council approval, staff would award the contract to the successful proponent to begin a solar energy feasibility study immediately following the award. This will ensure the study, and reporting requirements for the grant, are completed no later than September 30, 2024.

FINANCIAL IMPLICATIONS

Table 1: Study Cost

Proposed Price	\$77,500.00
Non-Recoverable Tax (4.29%)	\$3,324.75
10% Contingency	\$8,082.48
Total Proposed Cost	\$88,907.23

Table 2: Funding Sources

NS Low Carbon Communities Grant	\$75,000.00
Municipal Contribution	\$25,000.00
Total Project Budget	\$100,000.00

The recommended proposal is less than the total project budget, which may reduce the awarded grant and Municipal contribution. For this project, the impact to Municipal finances will be limited to the Council allocation of \$25,000 from the Regional Operating Reserve, as the other \$75,000 is a grant provided by the Low Carbon Communities program.

ALTERNATIVES

Council may choose not to support the recommendation.

ATTACHMENTS

Attachment A 2024-05-14 Staff Information Report: Solar Energy Feasibility Study

CHIEF ADMINISTRATIVE OFFICER REVIEW

This report is pending CAO review and comments.

Report Prepared by: _____
John Ogilvie, Climate Action Coordinator

Report Reviewed by: _____
Sara Poirier, Director of Planning and Development

Report Reviewed by: _____
Carlee Rochon, Director of Financial Services

Report Approved by: _____
Mark Phillips, Chief Administrative Officer (Pending)



Attachment A

WEST HANTS REGIONAL MUNICIPALITY REPORT

Information ☒	Recommendation ☐	Decision Request ☐	Councillor Activity ☐
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To: Mayor Zebian and Members of West Hants Regional Municipality Council

Submitted by: _____
John Ogilvie, Climate Action Coordinator

Date: 2024-05-14

Subject: Solar Energy Feasibility Study

LEGISLATIVE AUTHORITY

West Hants Regional Municipality (WHRM) Greenhouse Gas (GHG) Emission Local Action Plan: Action Items 2.2, 2.3, 2.4, and 2.5.

WHRM Municipal Climate Action Committee 2024 Workplan

RECOMMENDATION or DECISION REQUEST

As this is an information report, there is no recommendation or decision request for Council.

BACKGROUND

Property ☐	Public Opinion ☐	Environment ☒	Social ☐	Economic ☐	Councillor Activity ☐
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At the June 27, 2023, Council meeting, Council approved the following motion:

“...that Committee of the Whole recommend that Council approve in principle funding 25% as the Municipal contribution of an application to the Nova Scotia Low Carbon Communities program to support a solar energy feasibility study, up to a maximum Council contribution of \$25,000, to be funded through the Regional Operating Reserve”.

On November 14, 2023, staff were notified that WHRM received a grant of \$75,000 from this fund to perform a solar energy feasibility study. In combination with the Council allocation of \$25,000 from the Regional Operating Reserve, this provided a maximum project budget of \$100,000.

DISCUSSION

Following procurement processes, staff solicited proposals from consulting firms that are on standing offer with the Municipality. Staff requested a possible project timeline and budget, to assess proposals. The final reporting for the project is to be completed by September 30, 2024; an extension may be possible if required, but it is not anticipated to require an extension for this project.

Following detailed discussions about requirements with potential proponents, staff have received one detailed proposal to perform the feasibility study for the Municipality and are expecting another. As Council approval is required for a procurement of this amount, staff will bring a recommendation report to the May 28, 2024, Council meeting for Council consideration and approval.

NEXT STEPS

Following Committee of the Whole, staff will bring a recommendation report to Council with a recommended proposal. Pending Council approval, staff will inform the successful proponent, and begin working with the consultant(s) to perform the solar energy feasibility study.

FINANCIAL IMPLICATIONS

As this is an information report, there are no implications to Municipal finances.

Following Council approval of the 2024-25 budget, and pending Council approval of a project proponent, the feasibility study may cost up to \$100,000. The impact to Municipal finances will be limited to the Council allocation of \$25,000 from the Regional Operating Reserve, as the other \$75,000 is a grant provided by the Low Carbon Communities program.

ALTERNATIVES

Council may request further information on a specific topic.

ATTACHMENTS

Attachment A	2023-06-13 Staff Recommendation Report: NS Low Carbon Communities Fund
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CHIEF ADMINISTRATIVE OFFICER REVIEW

Report Prepared by: _____
John Ogilvie, Climate Action Coordinator

Report Reviewed by: _____
Sara Poirier, Director of Planning and Development

Report Reviewed by: _____
Carlee Rochon, Director of Financial Services

Report Approved by: _____

Mark Phillips, Chief Administrative Officer



Attachment A

WEST HANTS REGIONAL MUNICIPALITY REPORT

Information ☐	Recommendation ☒	Decision Request ☐	Councillor Activity ☐
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To: Mayor Zebian and Members of West Hants Regional Municipality Council

Submitted by: _____
John Ogilvie, Climate Action Coordinator

Date: 2023-06-13

Subject: Nova Scotia Low Carbon Communities Fund

LEGISLATIVE AUTHORITY

West Hants Regional Municipality (WHRM) Greenhouse Gas (GHG) Emission Local Action Plan: Action Items 2.2, 2.3, 2.4, and 2.5.

WHRM Municipal Climate Change Action Plan (MCCAP) Committee 2023 Workplan

RECOMMENDATION or DECISION REQUEST

...that Committee of the Whole recommend that Council approve in principle funding 25% as the Municipal contribution of an application to the Nova Scotia Low Carbon Communities program to support a solar energy feasibility study, up to a maximum Council contribution of \$25,000, to be funded through the Regional Operating Reserve.

BACKGROUND

Property ☒	Public Opinion ☐	Environment ☒	Social ☐	Economic ☒	Councillor Activity ☐
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The NS Low Carbon Communities Fund is administered by the Provincial Department of Natural Resources and Renewables. It is intended to help communities perform preparatory work for projects, advance community led solutions, support learning, and contribute to social and equitable investments for Nova Scotian communities. Projects must be feasibility studies, designs, strategies/plans, engagement/education activities, and should demonstrate innovative

low carbon solutions. The Fund will provide up to 75% of eligible costs, to a maximum of \$75,000 for clean electricity projects. Projects must be completed by August 1, 2024.

DISCUSSION

Action items 2.2-2.5 in the WHRM GHG Emission Local Action Plan pertain to developing solar energy in West Hants; it is also a stated priority in the 2023 workplan of the MCCAP Committee to develop a solar energy project.

In December 2022, an application was made to the Nova Scotia (NS) Sustainable Communities Challenge Fund for capital funding to develop a solar energy project. That application was unsuccessful, but various other capital funding opportunities will be available in the future. A feasibility study will reinforce an application for capital funding and help the Committee select a location on existing Municipal lands.

Action item 2.2 is to “consider green power purchasing”, which will serve to offset emissions produced from electricity used for Municipal operations. Action item 2.3 is to “investigate partnerships for renewable energy provisions”, so the Municipality can work with relevant organizations to advance renewable energy opportunities. A solar energy installation will allow the Municipality to offset its electricity consumption and reduce corporate emissions, while providing a clear example of the benefits of solar energy. Typically, to purchase green power, the Municipality would seek a green power producer to purchase electricity they generate for the Nova Scotia Power grid – such as a wind farm operator. By installing Municipally owned solar energy capacity, WHRM may not need to purchase green power from other sources.

Action item 2.4 is a wish list item, which is to “investigate solar PV for water and wastewater treatment plants”. Available space at the Windsor Water Treatment Plant (786 Windsor Back Rd.), new Windsor Wastewater Treatment Plant (293 Wentworth Rd.), and Falmouth Wastewater Treatment Plant (48 Falmouth Conn.) may be investigated within the feasibility study pending budget allocation. Lastly, action item 2.5 is to “update the asset management plan to include solar”. WHRM Public Works is adding Municipal assets and relevant information to the asset management software over time, including new solar powered assets such as crosswalk lights.

The sites recommended for the feasibility study to focus on are listed below:

- 1) Former West Hants Landfill in Cogmagun (near 1569 Walton Woods Rd.)
 - Estimated 598,000 sq. ft. of ground space available
- 2) New Windsor Wastewater Treatment Plant (293 Wentworth Rd.)
 - Estimated 260,000 sq. ft. of ground space available
- 3) Falmouth Wastewater Treatment Plant (48 Falmouth Conn.)

- Estimated 186,000 sq. ft. of ground space available

4) Windsor Water Treatment Plant (786 Windsor Back Rd.)

- Estimated 23,000 sq. ft. of ground space, 2,800 sq. ft. of roof space available

Subject to budget constraints within a feasibility study, three of the Municipal water utility facilities have been added to the list. They are the highest emitting facilities in the corporate portfolio and provide large amounts of open space for solar panels. The former landfill has been selected as the open space it provides cannot otherwise be developed or planted with trees, and the Municipality must safely upkeep the site in perpetuity. This funding opportunity was awarded to Halifax Regional Municipality in 2021-22 to perform a feasibility study for solar generation at the closed Sackville landfill.

As stated in the Nova Scotia Power (NSP) Regulations, Section 3.6.2(b), net metering for solar energy is currently not available to unmetered locations. This eliminates the ability to use the former Municipal landfill in Cogmagun, but the unused open space it provides cannot be ignored. The Province is currently updating solar energy regulations to include provisions for community solar, which would allow for larger installations in places such as the former landfill. This could be similar to the Municipally owned solar gardens in Antigonish, Berwick, and Mahone Bay, and the NSP owned trial in Amherst. More information about these projects can be found online at [CBC News: Amherst, Mahone Bay, and Berwick Solar Gardens](#) and [NSP Solar Garden Pilot](#). Performing a feasibility study on the former landfill site will prepare the Municipality for when Provincial regulations are updated.

Solar energy is an important component of Municipal action to mitigate and adapt to climate change. Electrification of existing processes will enhance efficiency but increase electricity demand, requiring greater amounts of green electricity to continue to drive down emissions. Solar energy cannot be the Municipality's only method for enhanced sustainability, but it will decarbonise corporate electricity consumption. The WHRM goal is to reduce corporate emissions by 45% by 2030; business as usual will result in a 44% reduction based on greening of the NSP grid, leaving WHRM to reduce an additional 1% (35.3 tonnes of GHG emissions). If WHRM were to install a solar energy installation large enough to meet the targeted 45% reduction in corporate emissions by 2030, the Municipality would likely need a 48-kW system. These calculations are based on average panel production and electrical grid emissions intensity for Nova Scotia, to give Council an idea of what is needed. All recommended locations in the list above have more than enough open space for a solar installation that will have measurable impacts and could exceed the corporate emissions reduction target. Detailed size and energy requirements would be determined as part of the feasibility study.

Other Municipal locations will continue to be investigated for solar energy, such as facilities included in an application for a feasibility study through the Federation of Canadian

Municipalities (FCM) Community Building Retrofit Program. The water utility facilities to be included in the NS Low Carbon Communities application are also on the list for the FCM Community Building Retrofit Program. If the Municipality receives funding from this Provincial application, and a consultant can accommodate those facilities, they will be replaced in the FCM application with other Municipal buildings.

NEXT STEPS

- 1) Motion and recommendation from Committee of the Whole to Council for June 27, 2023.
- 2) If the motion is approved by Council, staff will submit a full application to the Low Carbon Communities Fund before the deadline of June 29, 2023.
- 3) Funding decision from the Provincial Department of Natural Resources and Renewables.

FINANCIAL IMPLICATIONS

If Council approves the recommendation, an application will be made to this funding opportunity. If possible, quotes for feasibility studies may be obtained to be included in the application. With a conditional Municipal contribution of \$25,000, the maximum available grant is \$75,000, up to 75% of the study costs.

Within the 2023-24 Capital Budget, Council approved \$20,000 for the small-scale solar project to come from the Regional Operating Reserve, with the funding application to Nova Scotia (NS) Sustainable Communities Challenge Fund unsuccessful, this \$20,000 could be used for the feasibility study. This would mean that Council would need to fund an additional \$5,000 to reach the \$25,000 maximum request. The Regional Operating Reserve has a March 31, 2024 expected balance of \$3,338,146 and can support the additional \$5,000.

ALTERNATIVES

The Committee of the Whole may:

- recommend that Council approve in principle funding 25% as the Municipal contribution of an application to the Nova Scotia Low Carbon Communities Fund to support a solar feasibility study; or
- provide alternative directions such as requesting further information on a specific topic.

ATTACHMENTS

There are no attachments to this report.

CHIEF ADMINISTRATIVE OFFICER REVIEW

The report is very thorough and aligns with the goals and action plan of the MCCAP Committee. As noted in the report \$20,000 of the total \$25,000 request can be reutilized. The balance if approved by Council is affordable in relation to the reserve balance. If approved by Council and then the province the execution of a feasibility study would be an excellent foundation for a future project. Site selection can be further reviewed pending the study.

I support the recommendation.

Report Prepared by: _____

John Ogilvie, Climate Action Coordinator

Report Reviewed by: _____

Sara Poirier, Director of Planning and Development

Report Reviewed by: _____

Diana Gibson, Acting Director of Financial Services

Report Approved by: _____


Mark Phillips, Chief Administrative Officer